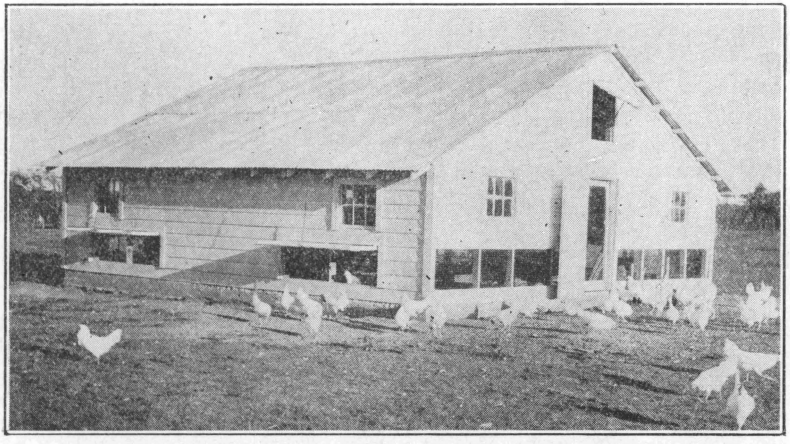
B-65 1938

Poultry Houses For Texas



issued by
The Extension Service
Agricultural and Mechanical College of Texas and
The United States Department of Agriculture
H. H. Williamson, Director, College Station, Texas

Poultry Houses For Texas

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and

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Poultry flocks should be housed if poultry production is to be an important part of the farm business and a real source of income. A good poultry house is not necessarily an expensive one. Many old poultry houses, sheds, or other old buildings can be converted into good poultry houses at small cost and with little labor.

Here are Essentials of Good Poultry Housing

The first purpose of a poultry house is to provide comfort for the flock. In Texas, shelter from heat, rain, and wind, rather than protection from cold, is the most important aim in poultry house construction.

The poultry house must be dry since dryness checks the development of most poultry disease organisms and increases the comfort of the birds. It should be so ventilated as to supply enough fresh air to meet the body needs of the birds and to carry away the stale and unhealthful fumes arising from the droppings. Ventilation must be provided without creating drafts which will chill the roosting birds and lead to colds and roup.

The poultry house plans shown in this bulletin are those which have been found to be the most successful and best adapted to Texas conditions. Detailed blue prints can be obtained from the Extension Service, Texas A. & M. College, College Station. Persons who desire a blue print should select the type and size of the house from the material presented in this bulletin, and should indicate their choice when requesting the print.

Location Is Most Important

Drainage is positively the most important factor in the location of a poultry house. Poorly drained locations result in cold, damp quarters which in turn lead to poor production, sickness and disease. In remodeling old buildings it is often advisable to move them to better locations. The house should face the south to permit the greatest possible amount of sunlight to enter. This is especially important during the winter when sunlight is most needed.

Sunlight increases the comfort of the birds in winter by bringing warmth and light into the poultry house. It is a powerful drying, disinfecting, and purifying agent, and is nature's source of ultraviolet light.

When the flock seeks shade outside of the poultry house, this indicates that the house is not sufficiently comfortable. Since fowls suffer extremely from high temperatures, particularly in late spring and summer, it is necessary that the poultry house be sufficiently ventilated as to give shade temperature inside the house. The mortality from heat, especially in adult stock, often results in greater annual losses than

from disease. Shade and a free circulation of air are perhaps the most practical means of keeping a poultry house cool and preventing losses from heat prostration. Sprinkling the floor sufficiently to dampen the litter on abnormally hot days, aids in reducing the temperature of the interior of the house.

Ample Floor Space Should Be Provided

The number of square feet of floor space per bird is a most important factor. Crowded houses sooner or later lead to a diseased flock.

From three to four square feet of floor space should be allowed for each bird where the flock is kept under close confinement. From two and one-half to three square feet of floor space per bird is sufficient under average Texas farm conditions, or where adequate range is provided. However, never figure on less than two and one-half square feet of floor space per bird.

Construction of Houses

Foundations Determine Life of Buildings

The life of a building is determined by the kind of foundation it has. Foundations made from material that decays, often ruin otherwise good buildings.

The use of a concrete foundation lends stability and permanence to the poultry house. Moreover, concrete foundation walls prevent rats and other predatory animals from getting under the floors. The foundation walls should extend six to eight inches above the ground line. Figure 1 shows the details of a good foundation.

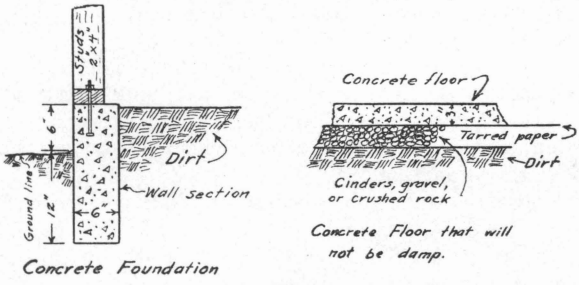


Fig. 1

Figure 2 shows how to rat-proof poultry houses or other buildings that are already constructed and that do not have the advantage of concrete foundation walls.

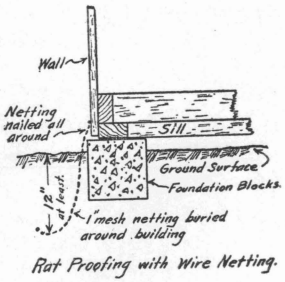


Fig. 2

Dry Floors Help Prevent Diseases

Poultry houses must have dry floors. Ease of cleaning and sanitation are other essentials. Concrete, dirt or wood floors may be used. The floor should slope about two inches toward the front to keep the litter, making house cleaning easier and sanitation better.

Concrete floors are generally recommended because they are permanent, easy to clean, rat-proof and impervious to vermin. This kind of a floor will be warmer and drier if underlaid with a layer of cinders or small stones as indicated in Figure 1.

When the house has concrete foundation walls, a dirt floor may well be used for a year or more and the concrete floor added later when the flock pays for it.

If dirt floors are used, it is recommended that at least two inches of the top dirt be removed each year, and replaced with new dirt from the farm where poultry has not run. Sand is preferred to tight soil. Dirt floors should be raised several inches above the outside ground level.

When wood floors are used, they should be made of tight fitting lumber such as shiplap to avoid cracks and to prevent buckling and should be raised at least ten inches above the ground. Floors close to the ground make rat harbors and soon rot out. It is a good practice to treat the floors and sills with a good wood preserving agent such as carbolineum.

Corrugated Iron Makes Good Roof

Corrugated iron is the most satisfactory roofing material. It is lasting, vermine proof, and as cheap as any good roofing. While galvanized iron as a roofing material has advantages which warrant its use on poultry houses, it has the disadvantage of being hot when the sun shines on it.

This disadvantage has been overcome to a large extent in the design of the houses shown in this bulletin by placing the galvanized iron on shiplap sheathing laid solid. At the same time, ample ventilation is given the houses which tends to overcome the heat radiation from the metal roofing.

Corrugated iron roofing should have more than one corrugation side lap. The most common type of this iron has both edges turned the same way. A good lap may be obtained with this type of sheet by turning alternate sheets upside down as shown in Figure 3. This method effects some saving in roofing. Always lap the iron so that the exposed edges turn down in the troughs of the sheet under them, regardless of the type of iron used. Allow at least six inches end lap.

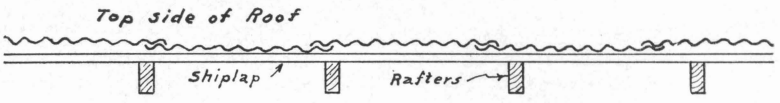


Fig. 3. An Economical Method of Getting a Good Side Lap with the Most Common Type of Corrugated Iron.

Shingles can be used on poultry houses that have a roof pitch of as much as one to four. They are not satisfactory if the roof pitch is less. A good grade of roll roofing over solid shiplap sheathing also makes a very desirable roof.

Dropping Pits Conserve Labor

Dropping pits are rapidly replacing the old type roost and dropping boards because they save considerable labor and aid in house sanitation.

The dropping pits should be placed at the back of the house away from the front opening. The height of the dropping pit should be 18 inches from the floor. The frames are made of 2" x 2" material. The length and depth are determined by the size of the house and roosting space needed. The frames are covered with poultry netting and hinged to the back of the house. The roost poles are 2" x 2" material with corners slightly rounded.

The front of the dropping pit is constructed by using 2" x 4" material on the floor and at the top. Poultry netting covers the opening to allow circulation of air.

One of the very best investments in the whole poultry house is the money expended for a sufficient amount of carbolineum with which to paint the roosts, dropping boards, and nests thoroughly. Mites and blue bugs will positively not harbor in places painted with this substance and its repelling effects last several months. It is also an excellent wood preservative. The carbolineum should be applied as the roosts and dropping boards are put together so that all cracks and joints will be thoroughly penetrated.

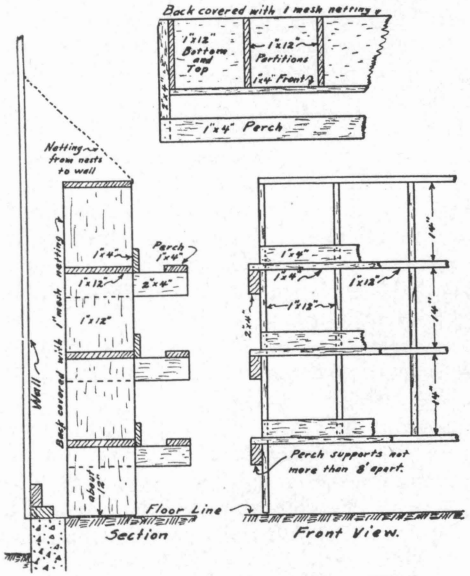


Fig. 4 Nests. Three Tiers High.

Nests

Supply one nest to each five hens. Nests may be placed at the end walls or partitions, several tiers high. Figure 4 gives details of construction.

Small Shed Roof House

For 65 to 70 hens	Blue Print No. 167
For 100 to 125 hens	Blue Print No. 168
For 125 to 150 hens	Blue Print No. 223

These are excellent type houses for the small flock owner. Three designs are available, the features of which conform to the large shed-roof house described on the following page. The houses are small yet of sufficient size for the rated capacities. They are inexpensive, easily built and well ventilated.

Back Yard Poultry House

For 25 hens — Blue Print No. 86

This house is for the back yard flock of about 25 hens. It is also an excellent house for the breeder in trap nesting and pedigree breeding. The house is built on skids to be movable, though when set the skids should be raised off the ground to avoid rotting. A wood floor is used in this house. It is designed to furnish ample ventilation for use in the warmer parts of the state and is about the same house that was used in the Texas egg laying contest.

Large Shed Roof House

For 200 to 250 hens — Blue Print No. 120

This house is one of the most popular farm poultry houses in Texas. Its simple shed type construction makes it easy to build and the cost per hen capacity is as low as any good poultry house. The house is well ventilated and admits a maximum of light.

The weather shields on the front of this and all other shed roof houses may be put on after the building is complete. It is desirable that the weather shield be hinged on the front of the house so that it can be opened in the morning to admit a maximum amount of sunlight. In rainy weather the shield may be adjusted to keep out the rain or in cold weather the shield may be dropped. Even in cold weather care must be taken to see that a sufficiently large amount of fresh air is entering the house to insure good ventilation.

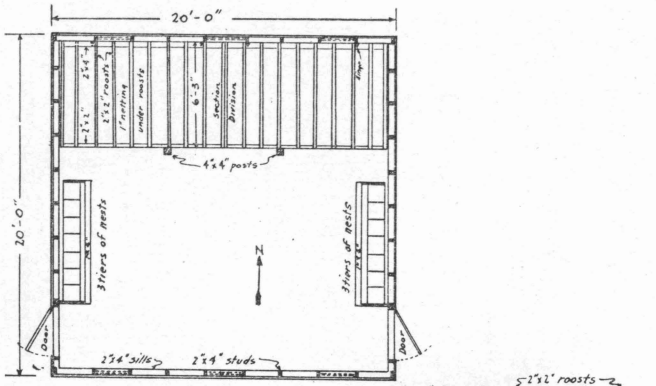
A house 20 feet in depth is desirable and if the capacity is to be increased it should be done by lengthening the house as follows:

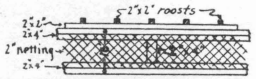
For 250 hens to 300 hens — house 20 x 40 feet.

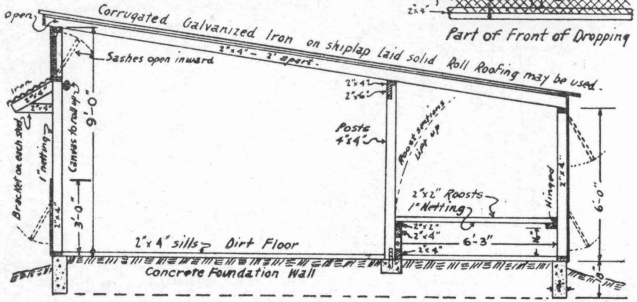
For 325 to 400 hens – house 20 x 50 feet.

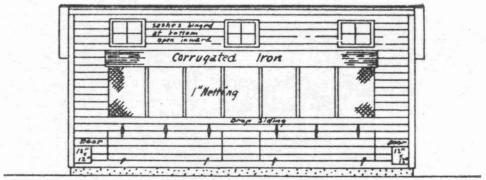
For 400 to 500 hens — house 20 x 60 feet.

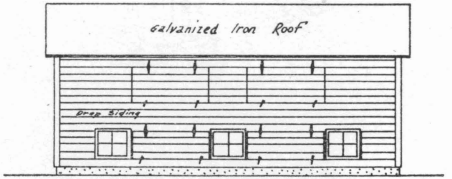
These longer houses can be built exactly in accordance with blue print No. 120 except for length with the following additions. Place a window in the rear at 10 foot intervals. Put in partitions from the roost to the roof each 20 feet to avoid side drafts. Canvas or lumber may be used for partitions.

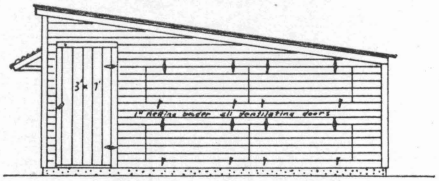












COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS U.S. DEPT. OF AGRICULTURE COOPERATING H. H. WILLIAMSON, DIRECTOR COLLEGE STATION, TEXAS	Shed Roof Poultry House 20'X 20' FOR 125 to 150 HENS.
DRAWN BY M.R. BENTLEY	SCALE AS SHOWN
TRACED BY E.S.H.	① SHEET
3719-7	SERIAL NO. 223

Fig. 5

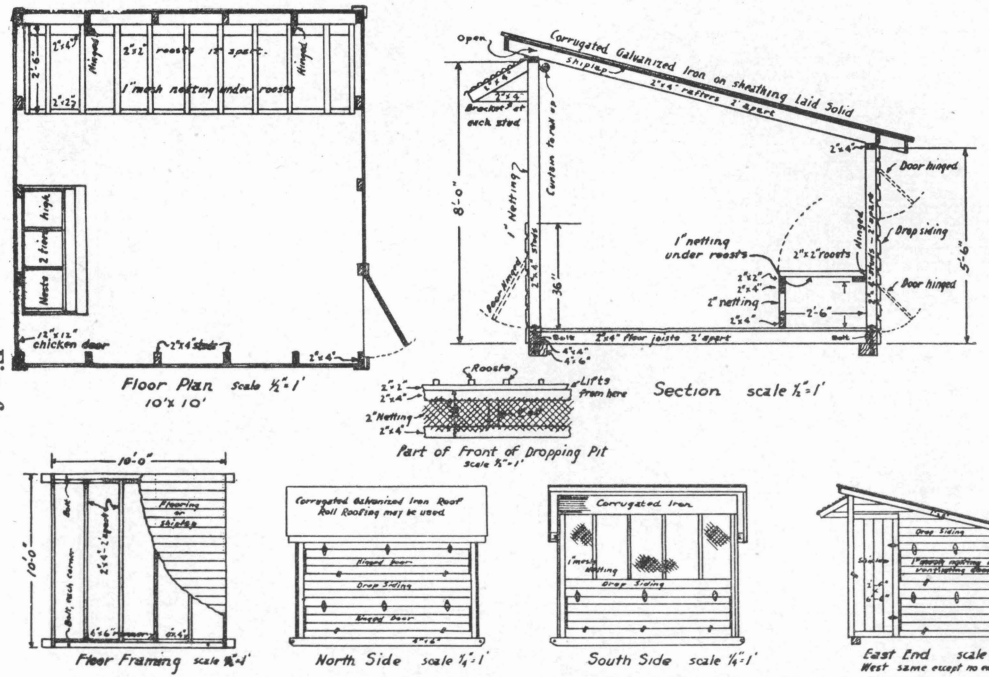
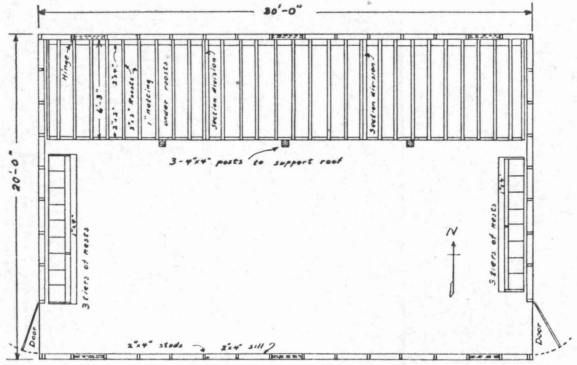
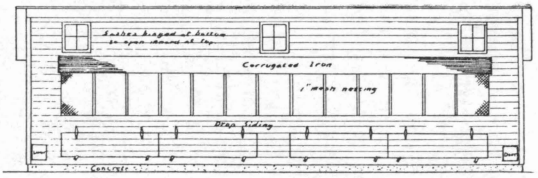


Fig. 9

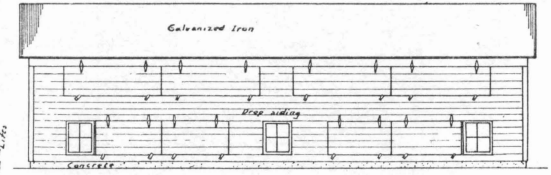
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS A.&M. COLLEGE OF TEXAS & U.S. DEPARTMENT OF AGRICULTURE COOPERATING H.H. WILLIAMSON, DIRECTOR COLLEGE STATION, TEXAS	SHED ROOF POULTRY HOUSE 10'X 10' FOR 25 HENS
DRAWN BY M.R. BARTLEY	SCALE ½" & ¼" = 1'
TRACED BY E.S.H.	① SHEET
3719-7 REVISED	SERIAL NO. 86



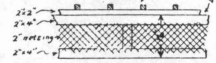
FLOOR PLAN Scale ½"=1'



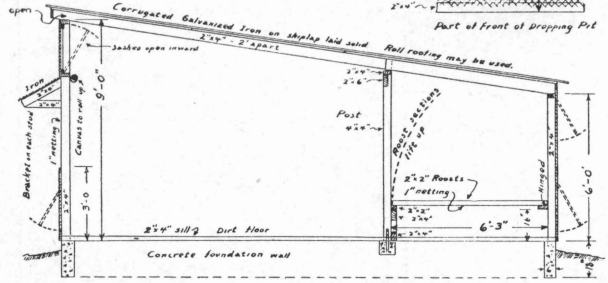
SOUTH ELEVATION Scale ¼"=1'



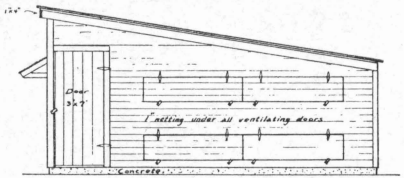
NORTH ELEVATION Scale ¼"=1'



Part of Front of Dropping Pit



SECTION Scale ⅜"=1'



END ELEVATION Ends alike. Scale ¼"=1'

Cooperative Extension Work in Agriculture and Home Economics A. & M. College of Texas and U.S. Department of Agriculture cooperating. H.H.Williamson, Director, College Station, Texas	SHED ROOF POULTRY HOUSE 20'x20' for 200 to 250 Hens
Drawn by M.R.Bentley	Scale as shown
Traced by M.R.B.	1 sheet
3719-7 Revised	Serial No. 120

Fig. 7

Gable Roof House

For 200 to 250 hens. Blue Print No. 113

The house shown in Figure 9 is a gable roof type giving the advantage of a straw loft, which makes it cooler in summer and warmer in winter. This plan may be used in remodeling old gable roof buildings into excellent poultry houses.

The south gable has a baffle or louver boards, while the north side has a ventilating door which can be closed. The house has ventilating doors and windows on three sides with the open front to admit plenty of light and air. The open front has a roll curtain which can be adjusted as in the case of the shed roof.

The ceiling joints serve to tie the rafters together and strengthen the roof. Slats, wire, or 1 x 4's nailed on the upper side of these ceiling joists support the straw in the loft. Houses with roof span of 20 feet or more should have supporting posts for ceiling and roof.

With exactly the same design the size may be varied for different capacities:

For 100 to 125 hens — house 18 x 18 feet — Blue Print No. 116
For 300 to 350 hens — house 30 x 30 feet

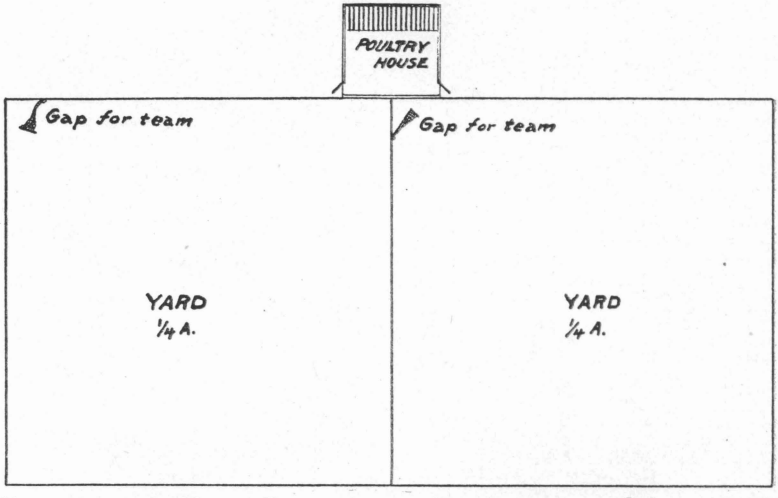
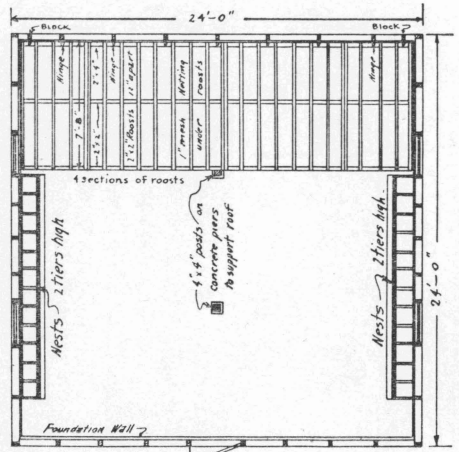
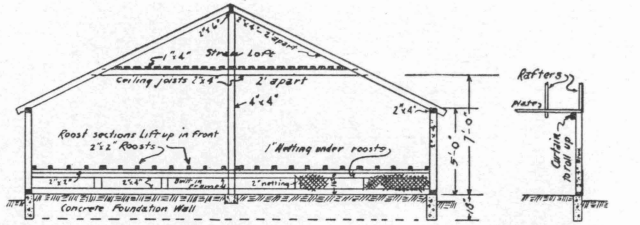


Figure 8. A double yarding system such as is recommended on page 14.

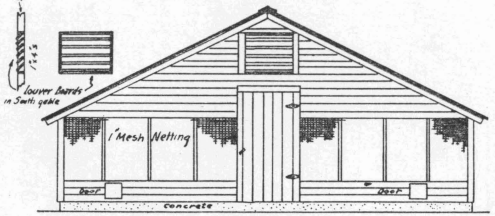


Floor Plan Scale ¼"=1'

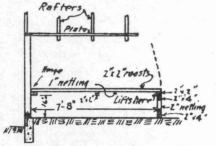


Section Scale ¼"=1'

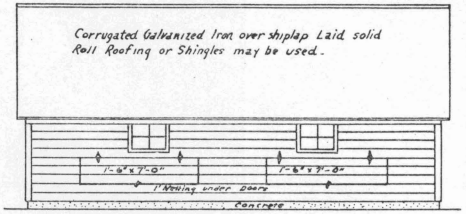
Part Section at Front. Scale ¼"=1'



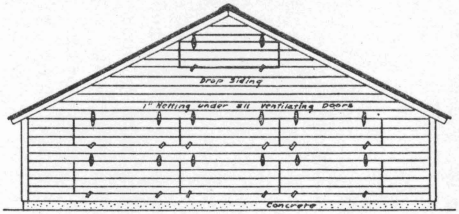
South Elevation Scale ¼"=1'



Part Section of Roosts Scale ¼"=1'



East and West Elevation Scale ¼"=1'



North Elevation Scale ¼"=1'

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
A. & M. COLLEGE OF TEXAS AND U.S. DEPT. OF AGRICULTURE COOPERATING
H. H. WILLIAMSON, DIRECTOR, COLLEGE STATION, TEXAS

SQUARE, GABLE ROOF
Poultry House
14'x24' FOR 200-250 HENS

DRAWN BY M.R. BENTLEY	SCALE AS SHOWN
TRACED BY E.S.B.	① SHEET
3719-7 REVISED	SERIAL NO. 113

Fig. 9

Brooder House

500 chicks Blue Print No. 166

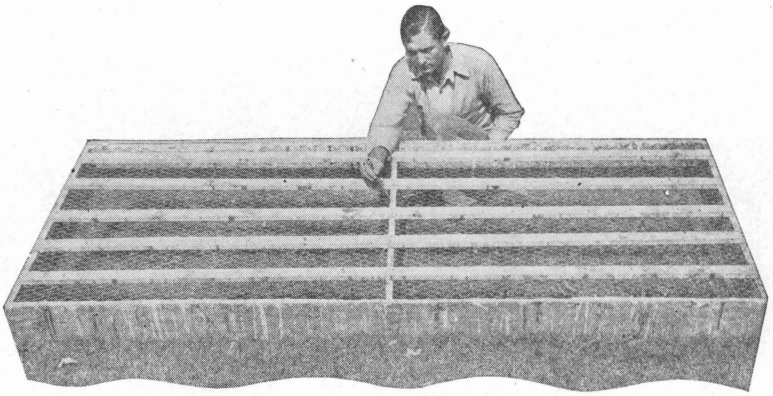
This 12 x 12 foot movable brooder house is designed for a 500 chick unit. It has a sufficient number of ventilating doors so that it can be used both as a brooder and as a summer shelter to grow out the pullets. During the early brooding season the back and side doors are to be closed tightly.

If the doors have been abused and do not close tightly, a layer of building paper over them on the inside will seal the house tight enough for early brooding. The two front ventilating doors may be opened during the brooding season and the openings then covered with glass substitute. The glass substitute is used to admit light and at the same time prevent drafts. Later in the season when the chicks are larger these glass substitute frames should be removed and the house opened up.

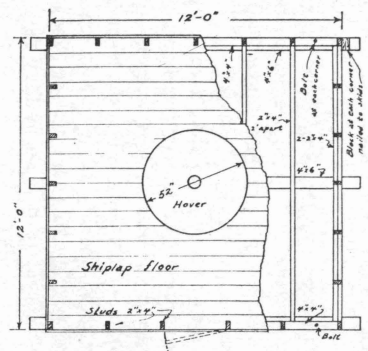
Ventilation during the brooding season may be adjusted by the hinged six-inch board at the ceiling in front. This ventilator allows air to escape between the rafters at the front of the house.

The house is mounted on three 4 x 6 runners. When the brooding season is over the house cay be moved to a good range, the ventilator doors opened and the house used through the summer as a pullet range house. The shiplap floors may be built in sections if desired. If this is done, then wire floors can easily be substituted when the house is being used as a range shelter.

The wickless types of oil brooders are less of a fire hazard. If a wick type is used it should be thoroughly cleaned, carefully watched and adjusted between each brood. Brooders should not be used at more than one-half their rated capacity. For 500 chicks a 52-inch hover should be the minimum size.

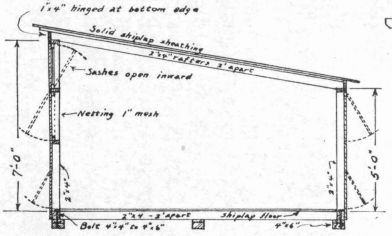


Build a set of roosts for the brooder house.

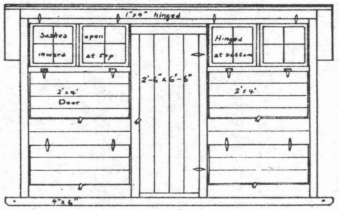


Floor Plan Scale 3/8"=1'

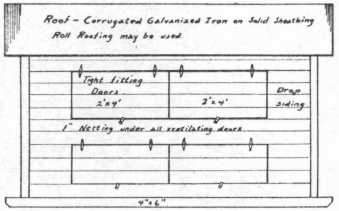
This house should have some braces set diagonally between studs, if it is to be moved about considerably.



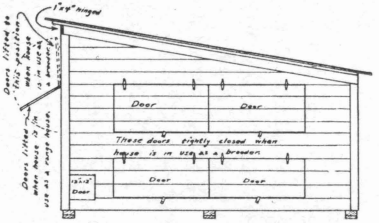
Section Scale 3/8"=1'



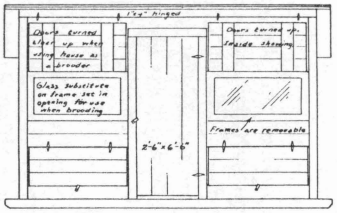
South Side Scale 3/8"=1'



North Side Scale 3/8"=1'



East and West End (same) Scale 3/8"=1'



South Side, fixed for brooding chicks
Scale 3/8"=1'

Cooperative Extension Work in Agriculture and Home Economics.
A.&M. College of Texas and U.S. Department of Agriculture cooperating.
H.H. Williamson, Director. College Station, Texas.

12'x12' BROODER HOUSE
AND
RANGE HOUSE

For 500 chicks. Use 1000-chick size hover

Drawn by M.R. Bentley	Scale as shown
Traced by W.R.B.	Sheet ①
329-7 Revised	Serial No. 166

Fig. 10

Range Shelter for Poultry

75 pullets Blue Print No. 222

The 8′ x 10′ shelter provides sufficient space for 75 pullets. The shelter should be constructed of light material. Many prefer to make the floor separate from the rest of the shelter for easy moving while others prefer to have this constructed in one unit with skids for sliding from one place to another. The floor of the shelter is covered with one-inch mesh poultry netting to prevent the birds from coming in contact with the droppings. The roost should be set 18 inches above the floor. 2″ x 2″ material with the edges slightly rounded and set 14 inches apart make excellent roosts.

In locating the shelter, it should be placed on land that is well drained, and has sufficient green feed growing to care for the pullets. It is best to locate upon ground that has not been used by chickens or fertilized with poultry manure for two previous years. In selecting the range one should keep in mind that shade is highly essential in growing strong vigorous pullets.

If shade is not available, the birds will spend a considerable part of the day in the shade of the range shelter and it does not take long for the ground immediately surrounding the shelter to become bare and foul with droppings. Where this is the case, frequent moving of the shelter is recommmended. When the shelter is moved the droppings should be removed and the ground plowed. It is a good practice to move the feed and water containers a few feet each day to prevent contamination.

Yarding the Poultry Flock Is Good System

Perhaps one of the best investments that a poultryman could make is to provide a yarding system for his poultry. It is well to keep the poultry house out of the poultry yard and to have the fence built along the front line of the poultry house.

The poultry yard should be divided into two runs so that a continuous supply of greed feed can be made available for the laying hens. A double yarding system in addition to making it possible to supply green feed at practically all seasons of the year, also acts as a control measure for intestinal parasites, inasmuch as the ground will be plowed at least twice a year for planting. The control of poultry diseases among flocks that are yarded will practically pay for the cost of a good poultry fence the first year.

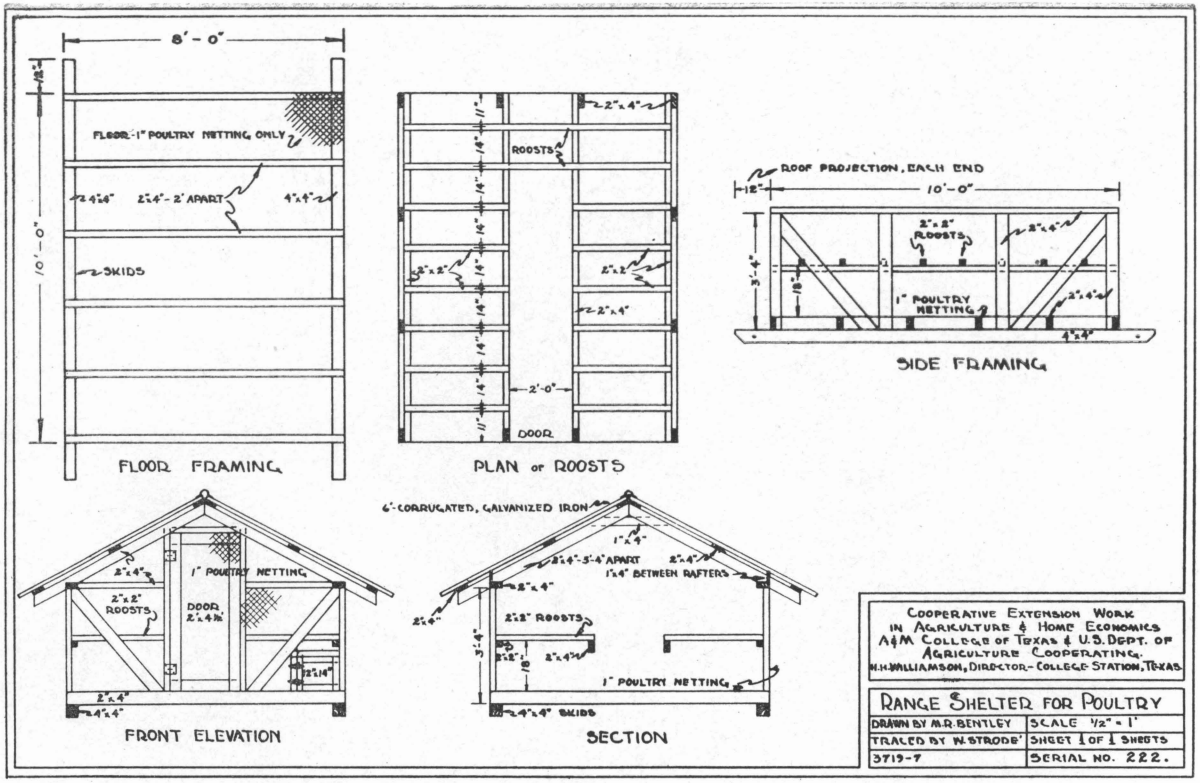

8'-0"
12"
10'-0"
FLOOR:-1" POULTRY NETTING ONLY
2"x4"
2"x4"-2' APART
4"x4"
2 SKIDS
FLOOR FRAMING
2"x4"
ROOSTS
11"
14"
2'-0"
DOOR
PLAN OF ROOSTS
ROOF PROJECTION, EACH END
12"
10'-0"
2"x2" ROOSTS
1" POULTRY NETTING
3'-4"
18"
4"x4"
SIDE FRAMING
6'-CORRUGATED, GALVANIZED IRON
1"x4"
2'x4"-5'-4" APART
1"x4" BETWEEN RAFTERS
2"x4"
2'x4"
2"x2" ROOSTS
3'-4"
18"
1" POULTRY NETTING
4"x4" SKIDS
FRONT ELEVATION
SECTION
COOPERATIVE EXTENSION WORK
IN AGRICULTURE & HOME ECONOMICS
A&M COLLEGE OF TEXAS & U.S. DEPT. OF
AGRICULTURE COOPERATING.
M.H. WILLIAMSON, DIRECTOR - COLLEGE STATION, TEXAS.
RANGE SHELTER FOR POULTRY
DRAWN BY M.R. BENTLEY
SCALE 1/2" = 1'
TRACED BY W. STRODE
SHEET 1 OF 1 SHEETS
3719-7
SERIAL NO. 222.

Fig. 11

A Farm Poultry Unit

Perhaps the ideal poultry unit for farm flocks in this state would be old hens in their second, third, or fourth year of production, and the balance pullets in their first year's production. To handle a flock of this kind most efficiently, one would need one 12′ x 12′ brooder house, one range shelter, and two 20′ x 20′ shed-roof type laying houses.

Two 20′ x 20′ shed-roof type laying houses are recommended in order that the poultryman can keep his old hens and pullets separate. Old hens as a rule are apt to be carriers of certain poultry diseases, yet have built up sufficient immunity to where they are not affected by the disease. If pullets are placed in the same laying house with old hens, the mortality is usually high, because the pullets themselves have not built up this resistance.

The poultryman should attempt to raise as many pullets each year as he will have old hens left over. The chicks should be brooded in a brooder house until they are about six weeks of age. The cockerels should then be separated and moved to the range shelter, and kept there until marketed.

After the cockerels are sold the range shelter should then be moved to new ground and half of the pullets taken from the brooder house and moved to the range shelter. It is also advisable to move the brooder house to clean ground at this time. This allows the brooder house to serve as a range shelter along with the shelter constructed for this purpose, and the pullets can be kept in these two houses until they are ready to be transferred to their laying quarters.

A system of this kind will produce stronger and more vigorous pullets and will enable the producer to receive the maximum benefits from the birds.

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